

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for determining the position, orientation and system gain factor of a probe comprising:

    a plurality of magnetic field sources;

    at least one magnetic field sensor, wherein a combination of a magnetic field sensor and a magnetic field source generates a unique measured magnetic field value, a probe whose gain, position, and orientation affects said unique measured magnetic field values; and

    a processor, configured to receive and iteratively process said unique measured magnetic field values, for determining a system gain factor indicative of the gain of said probe and a plurality of location factors indicative of the position and orientation of said probe;

    wherein the number of unique measured magnetic field values generated is at least equal to the sum of the number of gain and location factors calculated.

2-42. (Cancelled)